

**ABSTRACT**

A coronary artery bypass graft procedure is performed through one or more openings made in the patient to create a point of entry to the thoracic cavity. A vein measurement device measures the distance between the proximal and distal anastomotic sites for each graft. A proximal anastomosis tool splits to release a graft vessel after deploying an anastomosis device at the proximal anastomosis site. The tool may be articulated. An integrated stabilizer stabilizes one or more tools relative to the surface of the beating heart at a distal anastomotic site. A distal anastomotic tool may be provided as part of the integrated stabilizer, and connects one end of the graft vessel to a target vessel. An epicardial dissector may be provided as part of the integrated stabilizer, and dissects the epicardium from the target vessel at a distal anastomotic site, as needed.